FEDERAL - STATE COOPERATIVE

SNOW SURVEYS AND IRRIGATION WATER FORECASTS

for

Colorado River Drainage Basin

By

Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Colorado Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

As of

MAR. 1, 1952

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION
WATER SUPPLY FORECASTS

FOR

COLORADO RIVER BASIN

March 1, 1952

Report Prepared

by

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WATER SUPPLY OUTLOOK
COLORADO RIVER DRAINAGE
March 1, 1952

Snow accumulation on the headwaters of the Colorado River in Colorado, Wyoming and New Mexico to March 1 is very much above normal. In most areas in Colorado the snow water contents measured on March 1, 1952 far exceed any previous measurement on this date. Snow is also unusually deep in valley elevations above 6,000 feet. Snow melt season runoff may be near maximum of record for the Upper Colorado River Basin. Soil moisture conditions are reported as good over the Upper Colorado River Basin. Reservoir storage in the upper basin is about the same as a year ago.

The water supply outlook for Arizona tributaries is much better than for several years. Precipitation has been above normal during the fall and winter months and streamflow has been extremely high on the Salt River.

COLORADO RIVER AND TRIBUTARIES IN COLORADO

Colorado River (Above Glenwood Springs): The snow cover on the Colorado River above Glenwood Springs is 161 percent of normal and substantially above a year ago. Similar snow fall has occurred over the Upper Colorado River watershed including the Blue, Roaring Fork and Eagle drainages and the Grand Mesa area near Grand Junction. The snow cover is unusually heavy in valley areas near Kremmling, Eagle and in Glenwood Canyon. Soil moisture conditions are reported as good and stream flow above normal. Storage in Green Mountain reservoir is now about 93,800 feet as compared to 74,600 a year ago on this date.

Gunnison River: On the headwaters of the Gunnison River and the North Fork of the Gunnison the snow cover is unusually high. For all snow courses on the watershed the percentage of normal is 164 percent. On the Taylor and East Rivers and on Tomichi Creek the snow cover is near 200 percent of normal. Soil moisture conditions are reported as excellent and stream flow about normal. Storage in Taylor Park Reservoir is now 54,900 acre feet as compared to 49,800 acre-feet on March 1, 1951.

Yampa and White Rivers: On the Yampa River the snow cover is near a record high for March 1. The heavy snow extends into the Steamboat Springs area and to lower elevations. Similar conditions exist on the Elk and Little Snake Rivers which are tributaries to the Yampa. Precipitation has been above normal and soil moisture conditions will be excellent when the snow melts at lower elevations. On the White River snow cover is slightly less than for the Yampa at 140 percent of normal. Soil moisture in the Meeker area is reported as very good. Stream flow is above normal.

San Juan and Animas Rivers: Snow cover on the San Juan mountains as of March 1 is at a record high for this date. On some courses snow water contents were as

high as have been recorded at any previous data on April or May 1. Snow also extends to valley elevations with over one foot remaining on the ground at Durango. Soil moisture conditions are excellent over the San Juan Basin. Stream flow is above normal. With normal snow fall for the remainder of the season the summer flow of the San Juan and its tributaries will be higher than for any year since snow surveys were started in 1936. Storage in Vallecito Reservoir is 26,800 acre-feet as compared to 25,000 acre-feet on March 1, 1951.

Dolores River: On the headwaters of the Dolores and San Miguel the snow cover as of March 1 is very high. Soil moisture conditions are excellent and stream flow well above normal for this date. The watershed is covered with snow above 6,500 feet elevation with some snow in cultivated areas. Range conditions are reported as fair. The snow melt season runoff of this tream will be much above normal.

GREEN RIVER IN WYOMING

In contrast with other Colorado River tributaries the snow cover on the headwaters of the Green River in Wyoming is about normal and substantially less than a year ago.

COLORADO RIVER AND TRIBUTARIES IN ARIZONA

Most of the snow surveys were made prior to or on March 1. On March 1 and 2, a general storm occurred throughout the State which left between 18 and 30 inches of new snow on the watersheds. Therefore, this must be considered in evaluating the snow courses measured before the 1st of March. Measurements made after March 2 include the new snow depths.

Verde River Drainage: Snow water content varies from 6 to 10 inches at the higher elevations of this drainage above 6,500 feet. The soil is saturated and prospects for run-fff are very good. There is a possibility that the reservoirs on the Verde River Drainage will spill by the end of April, providing precipitation is normal to that date. Based on March 1 snow surveys, the flow of the Verde River above Horseshoe for the period March and April is forecast at 95,000 acre feet. This forecast may be raised after an investigation of snow conditions is made the middle of the month.

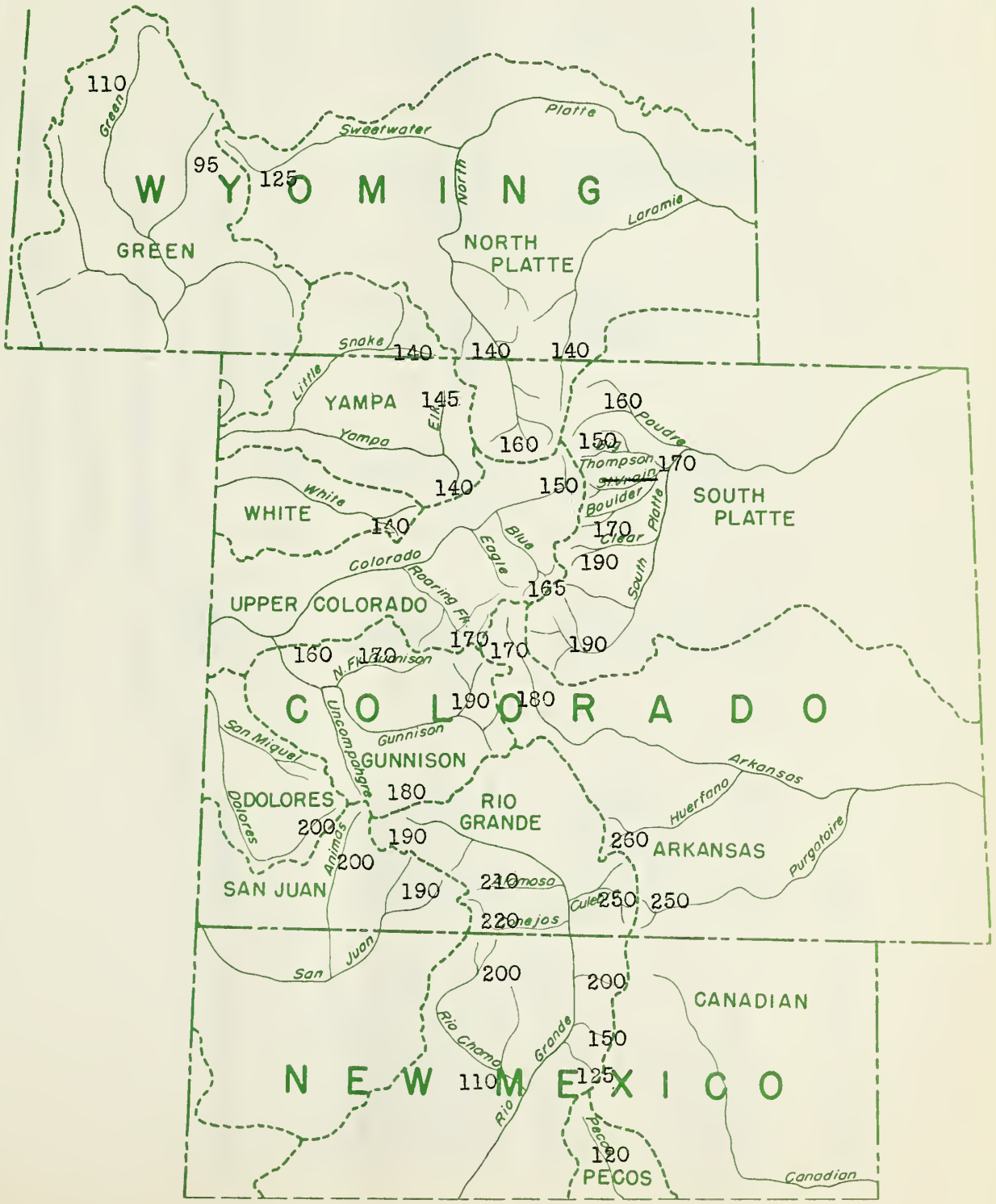
Salt River Drainage: There is still available on the higher elevations of the Salt River Drainage between 12 and 15 inches of snow water content. Some of the lower elevation courses around 7,000 feet have only traces of snow, but soil moisture conditions are excellent. Therefore, prospects for runoff continue to be good. Based on March 1 snow surveys, the forecast for the flow of the Salt River Drainage above Roosevelt, March through May, is 300,000 acre feet.

Gila River Drainage: Soil moisture conditions on the Gila River are good but snow cover is not sufficient to produce a good runoff. Runoff into the San Carlos Reservoir on the Gila River Drainage will be below normal. It is probable that the San Carlos Reservoir will store no more than 200,000 acre-feet by the end of May.

Prospects are that the total reservoir storage in the Salt River Project will be the same as was forecast January 31, 1952, 1,400,000 acre feet by the end of May.

WATER CONTENT OF SNOW ON THE WATERSHEDS OF PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal
March 1, 1952



SNOW SURVEYS AND IRRIGATION WATER SUPPLY FORECASTS

COLORADO RIVER BASIN

STATUS OF RESERVOIR STORAGE, March 1, 1952

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous. A. Ft.)	THOUSANDS ACRES FEETS IN STORAGE About March 1, 1952				
			1952	1951	1950	1949	10-year Avg.* 1942-1951
COLORADO DRAINAGE							
Taylor River	Taylor Park	106.2	54.9	49.8	71.4	63.4	70.9
Los Pinos River	Vallecito	126.3	26.8	25.0	51.6	54.9	41.4
Groundhog Creek	Groundhog	21.7	3.5	3.1	7.6	6.0	8.6
Blue River	Green Mountain	146.9	93.8	75.9	109.1	65.4	63.6
Colorado River	Lake Mead	27935.0	16574.0	17255.0	18316.0	18197.0	18966.2
Colorado River	Lake Havasu	688.0	591.0	620.8	645.0	574.0	594.3
SALT AND GILA DRAINAGE							
Salt River	Roosevelt	1420.0	491.5	4.6	317.4	223.5	495.7
" "	Horse Mesa	245.0	202.4	163.9	223.3	112.1	200.7
" "	Mormon Flat	58.0	40.5	55.0	34.6	27.3	35.6
" "	Stewart Mt.	70.0	46.5	47.9	37.1	27.3	26.1
Verde River	Bartlett	200.0	153.5	9.0	53.1	83.4	41.0
Horseshoe		67.0	55.0	1.0	9.0	36.0	12.5
Aqua Fria River	Carl Pleasant	173.0	120.0	0.0	6.2	24.4	15.8
Gila River	San Carlos	1200.0	154.3	0.0	92.9	162.0	207.0

*Some for shorter periods

SNOW SURVEYS AND IRRIGATION WATER FORECASTS
for
COLORADO RIVER BASIN

SUMMARY OF MARCH 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

WATERSHEDS	Snow Depth 1952 Inches	Snow Water Content in Inches				No. of Courses in Average	Snow Density 1952 Percent	1952 Water Content in Percent of	
		1952	1951	1950	15 yr.* Average			1951	15 yr. Avg.*
COLORADO RIVER									
Colorado River**	53.7	16.7	13.7	8.9	10.4	22	31	122	161
Roaring Fork	57.1	19.8	13.8	11.6	11.4	5	35	143	170
Plateau Creek	80.0	27.0	13.9	20.1	17.3	2	34	194	158
Green River	43.8	12.3	17.5	13.7	11.8	3	29	71	104
Yampa River	75.4	22.8	18.6	17.5	16.6	5	30	122	137
White River	57.7	18.7	14.8	11.7	13.5	2	32	127	139
Gunnison River	59.7	19.7	11.8	12.6	12.0	13	33	167	164
Dolores River	54.5	17.3	7.4	8.8	9.3	4	32	234	186
San Juan River	72.0	26.1	10.6	15.1	14.0	5	36	246	187
Animas River	51.6	16.6	6.9	6.1	7.4	2	32	241	224
Gila River	10.1	2.9	0.6	0.3	3.0	3	29	480	95
Salt River	8.0	1.6	1.1	0.1	2.0	5	20	144	80
Verde River	11.8	3.0	2.2	0.5	3.0	7	27	136	100
Little Colo.River	11.1	3.1	1.6	0.1	3.7	5	26	194	84
Williams River	0.0	0.0	1.6	0.0	1.0	3	—	---	---
Lower Colo.River	24.8	8.7	2.7	3.2	4.4	4	35	318	195

**Above Glenwood Springs. *Some for shorter periods.

PRECIPITATION DATA

WATERSHED	STATE	Precipitation* October 1 to February 29	Departure from Normal	Precipitation* February	Departure from Normal
Colorado	Colorado	10.96	+3.43	1.05	-0.60
Green	Wyoming	4.48	+0.85	0.66	-0.04
San Juan	New Mexico	8.61	+0.93	0.46	-0.49
Colorado	Arizona	9.60	+3.25	0.59	-0.98
Gila	Arizona	8.26	+1.64	0.45	-1.38

COLORADO RIVER DRAINAGE SNOW SURVEYS

March 1, 1952

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Snow Cover Measurements: Date of Survey	Snow Depth (Inches)	Water Content (Inches) 1952	1951	1950	Past Record: Yrs. of Rec.	Av. Water Content (Inches)
COLORADO RIVER												
COLORARO RIVER (above Glenwood Springs)												
Cameron Pass*	1 Colo.	2	6N	76W	10300	2/23	71.6	23.6	16.4	15.0	15	15.9
Park View*	7 "	24	5N	78W	9200	2/29	47.9	14.2	6.3	7.8	16	7.5
Phantom Valley	12 "	7	5N	75W	9300	2/29	50.3	14.8	12.7	6.7	16	8.6
Hoosier Pass	14 "	13	8S	78W	11400	2/29	50.2	15.5	14.1	7.1	15	8.6
Berthoud Pass	16 "	35	2S	75W	9700	2/28	57.2	17.2	15.5	7.3	16	12.2
Tennessee Pass	19 "	21	8S	80W	10200	2/28	46.7	13.1	11.6	5.8	16	7.4
M. Fork Camp Gr.	37 "	16	3S	77W	9000	2/28	42.5	12.8	10.9	5.8	16	8.0
Fiddler Gulch	44 "	1	8S	80W	11000	2/29	64.9	20.8	19.8	9.6	16	12.4
Lulu	59 "	25	6N	76W	10200	2/27	52.0	18.2	17.5	11.9	14	13.7
Willow Creek P.	62 "	1	4N	78W	9500	2/29	67.1	20.4	10.3	12.3	14	9.7
N. Inlet Grand L.	64 "	26	4N	75W	9000	2/27	42.5	12.8	9.4	5.7	14	7.4
Lake Irene	65 "	8	5N	75W	10600	2/27	71.8	26.5	25.3	17.0	14	17.2
Arrow	69 "	34	1S	75W	9900	2/27	42.8	12.0	10.2	5.2	14	7.8
Lapland	70 "	16	2S	76W	9500	2/29	50.1	15.9	14.0	10.4	12	9.4
Fremont Pass #2	79 "	2	8S	79W	11400	2/28	61.4	19.6	19.8	11.6	16	12.6
Lynx Pass	91 "	27	2N	88W	9100	2/27	46.3	12.7	9.0	8.6	16	10.5
Shrine Pass	96 "	15	6S	79W	10500	2/28	62.5	19.6	18.7	11.3	10	13.3
Grizzly Peak	97 "	2	5S	76W	11250	3/3	72.2	25.9	21.9	12.5	10	14.1
Glen-Mar Ranch	102 "	31	2S	77W	8850	2/28	42.1	12.6	8.1	4.0	5	7.3
Monarch Lake	105 "	30	2N	71W	8500	2/28	37.5	17.7	12.5	9.3	4	13.1
Granby	112 "	11	2N	77W	8700	2/27	35.2	10.1	5.0	5.4	3	5.6
Grand Lake	127 "	36	4N	75W	8600	2/29	46.7	13.0	8.8	5.2	3	8.0
Berthoud Summit	138 "	10	2S	75W	11300	2/26	67.4	21.3	14.8	—	1	—
Frazer View	139 "	34	2S	75W	10600	2/26	51.0	14.4	13.1	—	1	—
Gore Pass	143 "	2	1N	82W	8900	2/27	32.8	11.2	7.9	—	1	—
Frisco	146 "	18	6S	78W	9300	2/28	36.0	10.2	11.4	—	1	—
Snake River	147 "	9	5S	76W	9700	3/3	46.0	11.4	13.9	—	1	—
Summit Ranch	158 "	8	4S	78W	10000	3/3	49.0	14.6	11.3	—	1	—
	Average for drainage						53.7	16.7	13.7	8.9		10.4

COLORADO RIVER SNOW SURVEYS
March 1, 1952

Drainage Basin and Snow Course	Location					Date of Survey	Snow Depth (Inches)	Snow Course Measurements				
	No. and State	Sec.	Twp.	Range	Elev.			Water Content (Inches)			Past Record	
								1952	1951	1950	Yrs. of Record	Av. Water Content (Inches)
						COLORADO RIVER						
ROARING FORK												
Ind. Pass Tunnel	33 Colo.	30	11S	82W	10700	2/28	60.8	18.5	17.1	13.6	16	13.6
North Lost Trail	34 "	20	11S	87W	9200	2/29	62.3	21.1	14.4	14.2	16	11.0
Nast	45 "	1	9S	83W	8700	2/26	37.4	13.2	8.4	4.0	16	5.6
Ivanhoe	100 "	12	9S	82W	10400	3/1	66.7	27.0	17.5	12.7	5	14.4
Woods Lake	131 "	2	8S	83W	11000	2/27	58.3	19.4	11.6	13.5	2	12.6
Ruby	144 "	1	12S	83W	11500	2/28	52.9	16.5	13.8	--	1	--
			Average for drainage				57.1	19.8	13.8	11.6		11.4
GREEN RIVER												
East Rim Divide	44 Wyo.	32	37N	111W	7950	2/27	38.2	12.0	--	--	8	9.2
Dutch Joe	23 "	33	31N	104W	8700	2/26	38.2	9.4	--	--	--	--
Mulligan Park	24 "	17	35N	108W	8900	3/2	37.7	9.2	15.7	11.7	10	10.0
Kendall R.S.	25 "	23	38N	110W	7900	3/2	37.4	10.3	14.8	10.1	10	10.5
Loomis Park	26 "	14	37N	111W	8500	3/2	56.3	17.5	22.0	19.2	10	15.0
			Average for drainage				43.8	12.3	17.5	13.7		11.8
YAMPA RIVER												
Dry Lake	6 Colo.	26	7N	84W	8300	2/28	77.2	24.2	17.7	16.5	13	15.1
Columbine Lodge*	8 "	21	5N	82W	9300	2/27	78.1	27.7	25.8	15.1	16	18.2
Elk River	9 "	6	10N	85W	8700	2/28	69.7	18.8	15.3	16.6	13	13.7
Lynx Pass*	91 "	27	2N	83W	9100	2/27	46.3	12.7	9.0	8.6	16	10.5
Routt Line	140 "	13	5N	83W	9700	2/27	109.5	39.1	35.8	--	1	
Rabbit Ears	141 "	30	5N	83W	9550	2/27	86.2	28.9	25.4	--	1	
Yampa View	142 "	21	5N	84W	8500	2/27	56.3	18.8	14.4	--	1	
Old Battle*	9 Wyo.	29	14N	85W	9800	2/25	105.6	35.6	25.7	30.5	15	25.1
			Average for drainage				75.4	22.8	18.6	17.5		16.6
WHITE RIVER												
Burro Mountain	35 Colo.	15	2S	91W	9000	2/28	61.1	20.5	13.5	13.2	16	14.4
Rio Blanco	36 "	28	1N	88W	8500	2/29	54.4	16.9	16.1	10.2	13	12.5
			Average for drainage				57.7	18.7	14.8	11.7		13.5

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
March 1, 1952

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Course Measurements: Snow Depth (Inches)	Water Content (Inches): 1952	1951	1950	Past Record: Yrs. of Rec.	Av. Water Content (Inches)
						COLORADO RIVER						
PLATEAU CREEK												
Mesa Lakes	56 Colo.	35	11S	96W	10000	2/29	63.5	20.8	10.4	12.2	15	13.1
Trickle Divide	85 "	23	11S	94W	10000	2/28	96.5	33.1	17.4	28.0	12	21.5
	Average for drainage						80.0	27.0	13.9	20.1		17.3
GUNNISON RIVER												
Crested Butte	18 Colo.	22	13S	86W	9000	3/1	71.0	22.3	16.0	14.5	16	11.9
Marshall Pass	42 "	24	48N	6E	10800	3/3	57.8	17.2	11.9	7.5	16	9.9
Poncha Creek*	43 "	19	48N	7E	10500	3/3	51.8	16.2	9.3	7.4	16	8.2
Park Cone	46 "	19	14S	82W	9700	2/27	55.0	19.3	10.5	9.6	15	7.9
Alexander Lake	53 "	2	12S	25W	10000	2/29	55.5	26.3	13.4	18.8	15	17.5
Snowshoe Mesa	55 "	14	13S	89W	7500	2/28	40.3	12.3	7.8	10.0	15	8.0
Ironton Park	58 "	29	43N	7W	9800	3/1	58.8	18.0	9.3	5.2	15	10.6
Trickle Divide	85 "	23	11S	94W	10000	2/28	96.5	33.1	17.4	28.0	12	21.5
Park Reservoir	87 "	34	11S	94W	9500	2/28	93.2	32.0	16.1	26.5	12	20.2
Porphyry Creek	89 "	19	49N	6E	10800	2/28	65.8	21.0	15.7	10.3	11	12.8
Lake City	104 "	13	43N	4W	10300	3/1	41.7	10.0	5.8	6.9	4	7.0
Spring Cr. Pass*	123 "	2	42N	3W	10900	2/27	46.1	13.8	—	6.5	2	
Cochetopa Pass*	126 "	12	45N	3E	10000	2/29	29.2	5.5	4.4	2.6	3	4.6
McClure Pass	132 "	1	11S	89W	9500	2/29	61.6	22.6	14.1	17.0	3	15.6
Red Mt. Pass	153	13	42N	8W	11000	2/29	105.3	40.0	23.9	—	1	23.9
	Average for Drainage						59.7	19.7	11.8	12.6		12.0
SAN JUAN RIVER												
Wolf Creek Pass*	26 Colo.	4	37N	2E	10000	2/29	117.6	46.3	18.3	31.0	15	23.3
Upper San Juan	29 "	10	37N	1E	10000	2/29	127.8	47.4	20.2	32.2	14	25.5
Granite Peaks	93 "	24	37N	6W	7950	3/1	39.7	9.3	3.9	3.6	11	7.2
Wolf Creek Summit	155 "	6	37N	2E	11000	2/29	116.0	42.2	15.2	—	1	—
Chama Divide*	17 N.M.		36.9N	106.7W	7750	3/2	20.8	7.4	3.0	1.4	12	5.0
Chamita*	18 "		36.9N	106.7W	8500	3/3	54.0	20.2	7.5	7.5	11	9.0
	Average for drainage						72.0	26.1	10.6	15.1		14.0

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
March 1, 1952

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Snow Cover Measurements: Date of Survey	Snow Depth (Inches)	Water Content (Inches): 1952	1951	1950	Past Records: Yrs. of Rec.	Av. Water Content (Inches)
ANIMAS RIVER												
Silverton Sub.S.	30 Colo.	10	41N	7W	9400	2/29	40.6	12.0	6.3	2.3	13	4.8
Cascade	31 "	12	39N	9W	8850	2/29	62.6	21.3	7.5	3.9	13	10.1
Spud Mt.	149 "	32	40N	8W	10700	2/29	103.1	37.7	16.1	--	1	--
Molas Lake	150 "	7	40N	7W	10500	2/29	74.9	28.6	8.8	--	1	--
Howardville	151 "	15	41N	7W	9800	2/29	57.4	14.7	6.6	--	1	--
Mineral Creek	152 "	35	42N	8W	10300	2/29	68.6	21.7	12.5	--	10	--
Red Mt. Pass	153 "	13	42N	8W	11000	2/29	105.6	40.0	23.9	--	1	--
		Average for Drainage					51.6	16.6	6.9	6.1		7.4
DOLORES RIVER												
Rico	23 Colo.	11	39N	11W	8700	2/28	50.8	17.8	5.7	7.8	12	6.1
Telluride	24 "	6	42N	8W	8600	2/29	42.5	12.3	7.5	4.8	13	6.9
Lizard Head	25 "	24	41N	10W	10300		--	--	11.8	13.6	12	12.8
Lone Cone	90 "	23	41N	13W	8900	3/1	60.6	19.2	7.3	10.6	11	12.1
Trout Lake	114 "	8	41N	9W	9700	2/28	64.0	20.0	9.0	12.0	3	11.9
		Average for drainage					54.5	17.3	7.4	8.8		9.3
GILA RIVER												
Frisco Divide	11 N.M.	21	6S	20W	8000				1.0	0.4	14	2.2
State Line	14 "	5	6S	21W	88000				0.7	0.3	14	2.5
Taylor Creek	22 "	20	10S	10W	7850	2/29	0.0	0.0	--	0.0	10	0.4
Inman	23 "	6	11S	10W	7800	2/29	0.0	0.0	--	0.0	6	0.6
Nutrioso	1 Ariz.	23	6N	30E	8500	2/29	0.0	0.0	0.6	0.2	14	2.2
Beaver Head	2 "	13	4N	30E	8000	2/29	8.7	4.0	1.0	--	13	3.3
Coronado Trail	3 "	26	5N	30E	8000	3/3	21.5	4.8	0.8	0.6	14	3.4
Rose Canyon	29 "	15	12S	16 E	7300	3/1	0.0	0.0	0.0	0.0	2	0.0
Bear Wallow	30 "	6	12S	16E	8100	3/1	0.0	0.0	1.1	0.0	2	0.6
		Average for drainage					10.1	2.9	0.6	0.3		3.0

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
March 1, 1952

Drainage Basin and Snow Course	Location					Snow Course Measurements						
	No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Water Content (Inches)			Past Record	
								1952	1951	1950	Yrs. of Rec.	Av. Water Content (Inches)
						COLORADO RIVER						
VERDE RIVER												
Iron Springs*	7 Ariz.	22	14N	3W	6200	2/26	0.0	0.0	2.0	0.0	6	1.8
Camp Wood	8 "	3	16N	6W	5700	2/29	0.0	0.0	1.1	0.0	6	1.1
Mingus Mountain	14 "	3	15N	2E	7100	3/1	2.9	0.9	1.3	0.0	5	2.1
Morman Lake*	13	13	18N	8E	7350	3/1	15.5	6.5	2.9	—	4	8.1
Fort Valley*	12 "	22	22N	6E	7350	3/1	21.3	6.4	1.8	0.0	5	2.5
Chalender*	9 "	27	22N	3E	7100	2/29	17.4	6.2	1.5	0.0	5	3.2
Munds Park	18 "	7	18N	7E	6500	2/29	0.0	0.0	2.2	0.0	3	2.2
Casner Park	17 "	19	18N	8E	6930	2/29	15.7	6.8	2.0	—	1	
Mormon Mt.	19 "	14	18N	8E	7500	2/29	24.3	9.2	3.7	5.0	2	4.3
Antelope Park	16	29	19N	8E		2/29	21.0	9.0	3.0	—	1	—
		Average for drainage					11.8	5.3	2.2	0.5		3.0
WILLIAMS RIVER												
Iron Springs	7 Ariz.	22	14N	3W	6000	2/25	0.0	0.0	2.0	0.0	6	1.8
Camp Wood*	8 "	3	16N	6W	5700	2/29	0.0	0.0	1.1	0.0	6	1.1
Willor Ranch	15 "	16	21N	11W	5000	2/29	0.0	0.0	0.3	0.0	4	0.1
		Average for drainage					0.0	0.0	1.6	0.0		1.0
LOWER COLORADO RIVER												
Bright Angel	11 Ariz.	34	33N	4E	8400	2/29	47.5	17.5	6.9	11.6	5	9.3
Grand Canyon	10 "	21	30N	4E	7500	3/1	13.0	4.5	0.7	1.1	5	2.4
Fort Valley	12 "	22	22N	6E	7350	3/1	21.3	6.4	1.8	0.0	5	2.5
Chalender	9 "	27	22N	3E	7100	2/29	17.4	6.2	1.5	0.0	5	3.2
		Average for drainage					24.8	8.7	2.7	3.2		4.4

*On adjacent drainage

COLORADO RIVER SNOW SURVEYS
March 1, 1952

Drainage Basin and Snow Course	Location: No. and State	Sec.	Twp.	Range	Elev.	Date of Survey	Snow Depth (Inches)	Snow Cover Measurements: Water Content (Inches) 1952	1951	1950	Past Record: Yrs. of Rec.	Av. Water Content (Inches)
					COLORADO RIVER							
SALT RIVER												
Forest Dale	5 Ariz.	2	9N	21E	6000	2/29	0.0	0.0	0.0	0.0	13	1.0
McNary	4 "	14	8N	23E	7200	2/29	0.0	0.0	2.7	0.0	13	2.5
Nutrioso	1 "	23	6N	30E	8500	3/3	18.3	2.9	0.6	0.2	14	2.2
Coronado Trail	3 "	26	5N	30E	8000	3/3	21.5	4.8	0.8	0.6	14	3.4
Milk Ranch	6 "	28	8N	23E	7000	2/29	0.0	0.0	1.3	0.0	10	1.1
Workman Creek	17 "	33	6N	14E	5860	2/29	0.0	0.0				
Maverick Fork	23 "	13	6N	27E	9050	2/28	46.1	14.9	—	6.9	2	3.5
Baldy	22 "	28	7N	27E	9000	2/28	36.6	12.2	5.0	3.9	2	4.4
Fort Apache	21 "	18	7N	27E	9000	2/28	38.3	12.4	5.3	2.3	2	3.8
Pacheta	20 "				7800	3/3	33.0	6.0	1.8	0.0	2	0.9
		Average for drainage					8.0	1.6	1.1	0.1		2.?
LITTLE COLORADO RIVER												
Forest Dale*	5 Ariz.	2	9N	21E	6000	2/29	0.0	0.0	0.0	0.0	13	1.0
McNary	4 "	14	8N	23E	7200	2/29	0.0	0.0	2.7	0.0	13	2.5
Nutrioso*	11 "	23	6N	30E	8500	3/3	18.3	2.9	0.6	0.2	14	2.2
Mormon Lake	13 "	13	18N	8E	7350	3/1	15.5	6.5	2.9	—	4	8.1
Fort Valley	12 "	22	22N	6E	7350	3/1	21.3	6.4	1.8	0.0	5	2.5
Mormon Mt.	19 "	14	18N	8E	7500	2/29	24.3	9.2	3.7	5.0	2	4.3
		Average for drainage					11.0	3.1	1.6	0.1		3.7

*On adjacent drainage

Federal - State - Private

COOPERATIVE SNOW SURVEYS

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"